

Portable Handwashing Station

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Portable Handwashing Station

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Safety Notice

A thorough familiarity with all operating guidelines is essential to safe operation of the product. Failure to observe safety precautions could result in poor performance, damage to the system or other property, or serious bodily injury or death. The following symbols are intended to call your attention to two levels of hazard involved in operation.



CAUTION

Cautions are used when failure to observe instructions could result in significant damage to equipment.



WARNING

Warnings are used when failure to observe instructions or precautions could result in injury or death.

The information presented here is subject to change without notice.

1.0 Description

Terra's Portable Handwashing Station uses a specialized clean water reservoir and onboard waste water collection tank to provide a truly mobile solution. The faucet and soap dispenser feature hands-free activation using infrared sensors running on household batteries. The handwashing station is designed and constructed to have ultra-smooth surfaces, from the edges of the sink to the flush-mounted latch on the cabinet door. Constructed of 304 stainless steel, these mobile stations are built to last and are easy to clean on a regular basis. Smooth-rolling casters provide excellent maneuverability and include locking brakes for securing the station in place. A backsplash and ample counter space offer versatility when using the station for cleaning equipment or glassware.





Portable Handwashing Station

2.0 Installation

1. Portable handwashing stations are shipped fully assembled. Uncrate the unit and inspect it for signs of damage. If damage is present, notify your shipping company immediately to process a damage claim.
2. Always position the portable handwashing station on a level, stable surface, away from damaging heat or chemicals.
3. Perform a thorough cleaning/decontamination before placing the portable handwashing station in service.



Always apply the wheel brakes when the handwashing station reaches its destination.

3.0 Operation and Maintenance

The Portable Handwashing Station utilizes a cylindrical water tank with an internal diaphragm that is compressed as the tank is filled. The diaphragm exerts pressure on the water in the tank, producing a smooth stream of water when the hands-free faucet is activated. Waste water drains from the sink into a separate 10-gallon collection tank. The Portable Handwashing Station arrives preconfigured to provide at least 20 minutes of continuous water flow when the tank is filled using standard building water pressure (typically 50-60 psi).

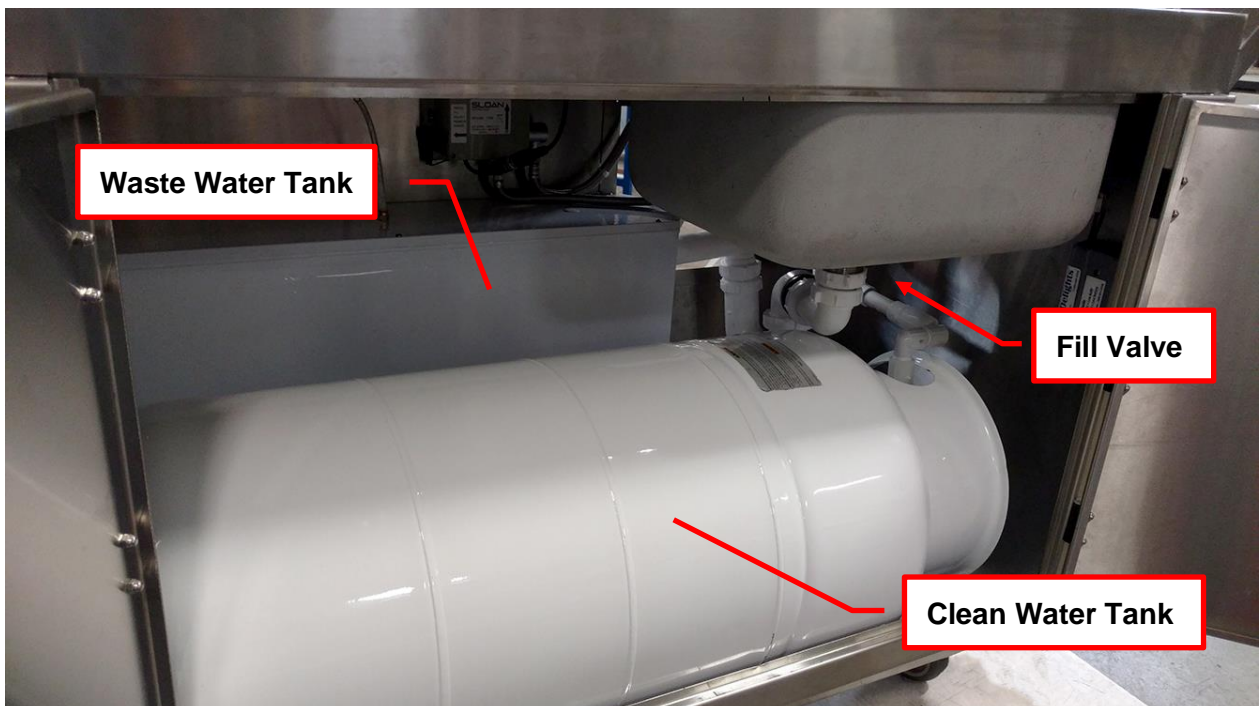


Figure 1. Opening the cabinet doors provides access to the major components, as well as the fill valve, power supplies, soap dispenser and pressure gauge port



3.1 Filling the Water Reservoir

1. Connect a clean water source to the port on the back of the handwashing station (See **Figure 3**).
2. Open the cabinet doors and locate the fill valve (See **Figure 4**). Open the fill valve by turning it 90° so that the handle is parallel with the water line.
3. Turn on the water source. Verify that the tank is filling by observing the pressure reading increasing on the pressure gauge.
4. The tank is full when the pressure stops increasing (when the pressure exerted on the diaphragm equals the pressure of the water source). Close the fill valve and shut off the water source.
5. Disconnect the water source from the handwashing station. There may be residual water in the water lines.



Figure 2. Pressure gauge shown with an empty water tank, reading only the pressure in the diaphragm (25 psi standard from factory)



Figure 3. Fill port on the back of the handwashing station (with water supply connected)



Figure 4. Open the fill valve to begin filling the tank



3.2 Draining the Waste Water Tank

The waste water tank should be drained periodically to prevent overflow. Signs of overflow include waste water backing up into the sink or, in some cases, waste water backing up into the air relief valve (See **Figure 6**).

To drain the waste water tank:

1. Position the Portable Handwashing Station over a floor drain or other suitable location for wastewater disposal.
2. Open the sliding door on the back of the handwashing station to access the Drain Valve (See **Figure 5**).
3. To begin draining the waste water tank, turn the Drain Valve 90° so that the handle is parallel to the water line.
4. When finished draining the tank, close the Drain Valve and close the access door.



Figure 5. Slide open the access door on the back of the handwashing station to reveal the Drain Valve



Figure 6. Air relief valve on top of the waste water tank



3.3 Refilling the Hands-Free Soap Dispenser

1. Open the cabinet doors and locate the soap reservoir on the right-hand side of the cabinet (See **Figure 7**).
2. Twist the soap reservoir counter-clockwise until it releases.
3. Refill with soap and twist the reservoir back into place.
4. Clean up any soap residue that may have dripped inside of the cabinet.

3.4 General Cleaning Instructions

Polypropylene should be periodically cleaned with clean, lukewarm water and a clean nonabrasive cloth. If desired, a mild, non-abrasive detergent may also be used. Use only light pressure when cleaning to avoid scratching the surfaces.

Clean stainless steel surfaces with alcohol (or similar cleaning agent) and a damp cloth.



Figure 7. The soap dispenser reservoir can be found near the Fill Valve on the right-hand side of the cabinet.



Do NOT use bleach on stainless steel surfaces (may cause pitting).

3.5 Sanitizing the Water Tanks

Both the clean water tank and waste water tank should be sanitized periodically to minimize the buildup of bacteria. Depending on the sensitivity of the facility and its operations, users should establish specific protocols and substitute appropriate sanitizing agents to best suit their particular needs and circumstances. Further decontamination may be required for the waste water tank depending on the chemicals involved (not covered in this manual).

To perform a general sanitizing of the water tanks:

1. Prepare a 5% sodium-hypochlorite (liquid bleach) solution
2. Use a small water pump (no more than 60 psi) to fill the clean water tank with the bleach solution (See **Section 3.1** for filling instructions)
3. Fill the waste water tank with the bleach solution (approximately 10 gallons) by pouring it into the sink.
4. Leave the bleach solution in the tanks for at least 4 hours to sanitize.
5. Drain the bleach solution from both tanks and refill with fresh water.
6. Run the handwashing station through one full tank of water to rinse out any remaining solution.



The concentration of sodium-hypochlorite in the solution may need to be increased or decreased based on the sensitivity of your processes. Follow established company protocol when sanitizing.



3.6 Adjusting Water Pressure and Clean Water Capacity

The diaphragm within the water tank is prefilled to 25 psi at the factory. This is the recommended pressure level to ensure adequate performance and will minimize the risk of overfilling the waste water tank during operation.

However, if the building water pressure is lower than 50-60 psi, the clean water tank will not be filled to the optimum level. In this scenario, the pressure in the diaphragm can be decreased by an equivalent amount to ensure all of the clean water capacity is utilized.

Be aware that adjusting this baseline pressure will increase the capacity of the water tank, but operation is still limited by the capacity of the waste water tank. As the baseline pressure decreases, more frequent draining will be required. Testing and trial runs should follow any adjustments to the baseline pressure to establish an appropriate protocol for filling and draining the tank at the new baseline pressure level.

To adjust the baseline air pressure in the clean water tank:

1. Run the faucet until the clean water tank is empty.
2. Note the reading on the pressure gauge (this is your current baseline pressure).
3. Open the cabinet doors and locate the air pressure port on the round end of the clean water tank (See **Figure 8**).
4. Unscrew the pressure gauge line from the port.
5. Connect an air compressor to the port (See **Figure 9**; a flexible hose with pressure gauge is required).
6. While monitoring the gauge, slowly increase or decrease the pressure in the diaphragm to the new baseline.
7. Reconnect the air pressure gauge to the port when finished.



Figure 8. The port for the air pressure gauge can be found on the round end of the clean water tank



Figure 9. Disconnect the gauge line and use a flexible hose to connect an air compressor to the port for adjustment



If the baseline pressure in the clean water tank is too low (< 10 psi), the flow of water at the faucet may be inadequate. Likewise, increasing the baseline pressure beyond 25 psi will not increase flow at the faucet.



3.7 Hands-Free Faucet/Soap Dispenser Battery Replacement

Both the hands-free faucet and soap dispenser are battery powered. If either component stops functioning or demonstrates weak performance, the batteries may need to be changed.

1. Open the cabinet doors and locate the power supply of the malfunctioning component (See **Figures 10 and 11**).
2. Remove the screws to release the cover
3. Replace the batteries inside and reinstall the cover.



Figure 10. Twist the outside of the gloveport counter-clockwise to release the outer assembly



Figure 11. The retaining ring (indicated by the arrow) clamps the membrane against the outer ring



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Generally, customers can improve the chance of collecting on a freight claim by following these procedures: 1) formally requesting that the carrier inspect the shipment immediately upon suspecting damage or shortage to verify condition; 2) notifying the carrier upon discovery of concealed damage and requesting an inspection within 15 days of receipt, both in person or phone and following up via mail; 3) keeping the shipment as intact as possible, including retaining original packaging materials and keeping the product as close to the original receiving location as possible; 4) holding salvage for disposition by the carrier.

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Warranty Returns: All warranty returns must be authorized in advance by Terra Universal and approved under an RMA. Unless approved in advance for good reason, all returns must be in original condition, including all manuals, and must be packaged in original packaging materials. All returned goods are to be shipped to Terra Universal, freight prepaid at customer's expense. See Terra's "Policy and Procedure for Returned Goods."

*Thank you for ordering from
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